

October, 22nd

Join us to inspire future innovation
within our vibrant community!



A. CHEMICAL SCIENCES AND TECHNOLOGIES

CQE | CENTRO DE QUÍMICA ESTRUTURAL

- A.1 *Medicinal and Biological Chemistry for Health at CQE*
- A.2 *Environment and Energy Research at CQE*
- A.3 *Innovation at CQE*
- A.4 *M.Sc. Students at CQE*
- A.5 *Ph.D. Students at CQE*



B. LIFE SCIENCES

CE3C | CENTRE FOR ECOLOGY, EVOLUTION AND ENVIRONMENTAL CHANGES

- B.1 *Thermal Evolution and Plasticity: Insights from Gene Expression in *Drosophila subobscura**

Marta A. Antunes, Marta A. Santos, Ana S. Quina, Mauro Santos, Margarida Matos, Pedro Simões



- B.2 *Mechanisms underlying the loss of migratory behaviour in a long-lived bird*

Inês Catry, Pedro Andrade, Aldina Franco, Sandra Afonso, Cristina Marques, Francisco Moreira, Miguel Carneiro, Marta Acácio

B.3 *Functional analysis of transcriptional enhancers associated with tumor dormancy*

Menezes, J.; Santos, I.; Cipriano, R.; De Martino, D.; Bresnahan, E.; Heredia, F.; Bravo-Cordero, J.J.; Gontijo, A.M.

B.4 *The Hidden Microbial World of Griffon Vultures - Passive Reconnaissance for Ecosystem Health, Biological Security and Risk Assessment*

Mónica Nunes, Mariana Lime de Nascimento, Isa Serrano, Eva Cunha, Filipa Lopes, Pedro Pascoal, Marcelo Pereira, Luís Tavares, Manuela Oliveira, Ricardo Dias

B.5 *Zebrafish Olfactory Pit: Unlocking Cilia Motility Recovery*

Catarina Bota, Margarida Rasteiro, Joana L. Miranda, Manuel Silva, Susana S. Lopes

B.6 *Microbial Ecology for Nature-Based Innovation*

Teresa Dias, Patrícia Correia, Luís Carvalho, Juliana Melo, Cristina Cruz

B.7 *Resilience of permanent grasslands and pastures in Portugal: implications under climate change*

Ana Paula Portela, Maria Alexandra Oliveira, Maria Espírito Santo, Cristina Branquinho

B.8 *Cátedra em Sustentabilidade de Ecossistemas Subterrâneos – Loulé*

Ana Sofia Reboleira

B.9 *Local adaptation to altitude: isolating the mechanisms underlying temperature-induced dietary shifts in the Natterjack toad*

Sara Bento, Gemma Lackey, Rosie Ryland, Gabriel Slottner, Joana Martelo, Maria F. Magalhães, Pedro Segurado, Francisco Silva, João Caramelo, Pedro P. Sousa, Joana V. Boas, Anssi Laurila, Elin Videvall, Pavel Kratina, Richard Svanbäck, Vladimíra D. Carreira, Rui Rebelo, Bruno M. Carreira

**BIOISI | BIOSYSTEMS AND INTEGRATIVE SCIENCES
INSTITUTE**



BioISI
[integrating sciences]

B.11 *Heterodimerization between Signal Transducer and Activation of Transcription 3 (STAT3) and NF-κB/RelA alters their response to cytokines*

Constança Pimenta, Fernanda Murtinheira, Mário S. Rodrigues, Federico Herrera

B.12 *Exploring the role of Sacs1 and S100B in Cytoskeleton Organization in ARSACS Glial Model*

Fernanda Murtinheira; Mário Rodrigues; Cláudio M. Gomes; Federico Herrera

B.13 *Exploring Boron-Based Approaches for Novel Radiation Therapies in Neurodegenerative Diseases*

Francisca Afonso, Belen Cortés-Llanos, Carina Coelho, Daniel Galaviz, Federico Herrera, Pamela Teubig

B.14 *Beyond the whole plant: can elicited grapevine cells suspension mimic whole plant defence responses?*

Maria Paes; Catarina Silva; João Pereira; Soraia Santos; Jasmine Hertzog; Vincent Carré; Marisa Maia; Andreia Figueiredo; Rita Santos

B.15 *Theranostics for People with Cystic Fibrosis: A561E-CFTR is rescued by ellexacaftor/tezacaftor/ivacaftor*

Cláudia S. Rodrigues, Ines Pankonien, Violeta Railean, Isabel Coelho, Margarida D. Amaral

B.16 *When Folding Gets Tangled: From Stability to Activity in UCH-L1*

Sara G. F. Ferreira, Patrícia F. N. Faísca, Miguel Machuqueiro

B.17 *NKX6-2 wild-type displays gain-of-function toxicity in HEK293T cells*

Pedro Peralta, Vasileios Voutsinos, Rasmus Hartmann-Petersen, Kresten Lindorff-Larsen, Mário Rodrigues, Federico Herrera

B.18 *Functional analysis of Chestnut and Phytophthora cinnamomi genes involved in plant-pathogen interaction*

Marcelo Francisco, María Teresa Martínez, Patrícia Conde, Helena Machado, Rui Malhó, Patrícia Fernandes, Rita Lourenço Costa, Elena Corredoira, Susana Serrazina

B.19 *The role of the phage repressor gene in prophage induction*

Mafalda Guimarães, Luís Tanoeiro, Wolfgang Fischer, Filipa F. Vale

B.20 *Antimicrobial Coated Filters for Safe and Sustainable Water Treatment*

Olga Ferreira, Patrícia Rijo, João Gomes, Rita Guedes, Maria Luísa Serralheiro, Marisa Gomes, Luciana C. Gomes, Filipe J. Mergulhão, Elisabete R. Silva

B.21 *Sustainable Synthesis of Metal Nanostructures as a Green Strategy for Antifouling Mitigation*

Noelia Losada-García, Nanni Noël-Hermes, Maria Salta, Andrea Koerdt, Elisabete R. Silva

B.22 *Biofouling Mitigation Through Biocidal Coatings: A Nanoscale Perspective Using AFM*

Ana Carapeto, Gabriel M. Afonso, Mário S. Rodrigues, Elisabete R. Silva

B.23 *Tackling the Threats of New Psychoactive Substances*

Helena Gaspar, Rita P. Lopes, Daniela R. Ferreira, Mariana Menezes, Matilde D'Albuquerque, Mariana Correia, Inês Bento, Carlota P. Ferreira, Cristiana Ferreira

**MARE - MARINE AND ENVIRONMENTAL
SCIENCES CENTRE**



B.24 *The behavioural complexity of cleaning mutualisms*

José Ricardo Paula, Raúl Oliveira, Luís Almeida, Beatriz Pereira, Tânia Marquês, Francisco Louro, Patrícia Pinto, Catarina Barros, João Grave, Maria Mariano, Daniel Gouveia, Catherine E. Sheppard

B.25 *Understanding the response of phytoplankton to climate change in Antarctica*

Graça Sofia Nunes, Afonso Ferreira, Ana C. Brito, Carlos Rafael Mendes, Catarina V. Guerreiro, Vanda Brotas

B.26 *eDNA in the marine environment: myth or science?*

Maria Inês Silva, Stefano Mariani, Octávio S. Paulo, Ana Rita Vieira

B.27 *Integrating otolith shape and chemistry to infer migratory plasticity of an euryhaline species*

Rita Almeida, Patrick Reis-Santos, Catarina Mateus, Filipe Ribeiro, Bronwyn Gillanders, Bernardo Quintella, Susanne Tanner

B.28 *Climate-smart marine spatial planning in Antarctica and the Southern Ocean*

Catarina Frazão Santos, Catarina Pereira Santos, Francisco O. Borges, David Abreu dos Santos, Zahra Khan, Julia Werdenig, Beatriz Cabral, José C. Xavier, Tundi Agardy, Larry B. Crowder, Lisa Wedding, Renuka Badhe, Cassandra Brooks, Kevin Hughes, Susie Grant, Will McClintock, Marinez Sherer, Amanda Lombard, Helena Calado, Elena Gissi, Charles N. Ehler

B.29 *Shaping the future: the tide ahead for CoastNet*

Susana França, Ana C. Brito, Bernardo Quintella, Paula Chainho, Helena Adão, Carlos Alexandre, José Lino Costa

B.30 *Emerging techniques for detecting and monitoring invasive species*

Filipe Ribeiro, Rui Rivaes, Christos Gkenas, Diogo Ribeiro, Diogo Dias, Sofia Nogueira, Mafalda Moncada, Beatriz Castro

B.31 *coralINT: linking environmental, compositional and functional change on coral reefs*

Maria Dornelas, Viviana Brambilla, Nina Schiettekatte, James Cant, Garrett Fundakowski, Cher Chow, Matthew-James Bennett, Emily Croasdale, Sofia Freitas

B.32 *Marine Biological Invasions: from science to management*

Paula Chainho, Sara Cabral, Frederico Carvalho, Inês Afonso, Romeu S. Ribeiro, Thomas Goulding, Maria João Correia, Inês Pires, João Paulo Medeiros, António Paulo Dionísio, Joana Rocha, Nuno Castro, José Lino Costa

B.33 *One Ocean, One Health: Emerging Contaminants and the Spread of Marine Resistance Genes*

Bernardo Duarte & Vanessa Fonseca

C. EARTH SCIENCES

IDL | INSTITUTE DOM LUIZ



INSTITUTO
DOM LUIZ

C.1 *Atmospheric Research for the 21st Century: Extreme Events in a Changing Climate*

Rita M. Cardoso, Pedro M.M. Soares, Ana Russo, Carlos Camara, Luana Santos, Miguel Lima, João Careto, Angelina Bushenkova, Frederico Johannsen, Silvia Nunes, André Lourenço

C.2 *Decoding the Ocean: Regional Patterns, Extremes, Ecosystem Impacts*

Ana Machado, Sandra Plecha, Gil Lemos, Pedro Nunes, Susana Silva, Álvaro Peliz

C.3 *GNSS Tomography as a Cost-Effective Tool for Atmospheric Water Vapor Monitoring*

Pedro Mateus, Pedro Miranda, João Catalão

C.4 *A Partial Juvenile Sauropod Individual from Algora (Cenomanian, Guadalajara, Central Spain)*

Pedro Mocho, Adán Pérez-García, Marcos Martín-Jiménez, Francisco Ortega

C.5 *A GAM-based classification of ranges of fin whale calls obtained from single seismic sensors*

Andreia Pereira, Rose Hilmo, William Wilcock, Danielle Harris, Luis Matias

C.6 *Sulfur and metal cycling in the gabbroic section of the Oman Ophiolite*

Ana P. Jesus, Harald Strauss, Mario A. Gonçalves, Michelle Harris, Diogo R.A. Silva, Martin Whitehouse, Daimon Teagle

C.7 *Unravelling the November 1, 1755 Tsunami Record Across the Atlantic*

Francisco Fatela, Pedro Costa, Francisco Dourado

- C.8** ***Tracking subsurface dynamics on El Hierro and La Palma: Temporal variations in seismic anisotropy during volcanic unrest***
Graça Silveira, David Schlaphorst, Pablo González, Ricardo Ramalho, Resurrección Antón
- C.9** ***Raw Material Challenges for the Energy Transition***
Bernardo Teixeira, Miguel Centeno Brito, António Mateus
- C.10** ***Solar Potential of the Railway***
Margarida Luis, Miguel Brito

D. PHYSICAL SCIENCES AND ENGINEERING

CFTC | CENTER FOR THEORETICAL AND COMPUTATIONAL PHYSICS



- D.1** ***Origin of matter***
- D.2** ***Structure and dynamics of matter***
- D.3** ***Light and matter***

IA | INSTITUTE OF ASTROPHYSICS AND SPACE SCIENCES



- D.4** ***MOONS Rising: Unveiling Galaxy Evolution at Cosmic Noon***
Cirino Pappalardo, José Afonso, Israel Matute, Alexandre Cabral, Henrique Miranda, Carlota Luz, Ellie Worrell, et al.
- D.5** ***PoET: the Paranal solar ESPRESSO Telescope - A spatially resolved Sun in a high-resolution spectrograph***
Alexandre Cabral, António Oliveira, Bachar Wehbe, David Castro Alves, Inês Leite, Manuel Abreu, Ricardo Clara
- D.6** ***Gravitational wave propagation in hybrid metric-Palatini gravity***
Miguel Pinto

D.7 *Detecting and Characterising atmospheric gravity waves on Mars' atmosphere - Final results using data from OMEGA/Mars Express*

Francisco Brasil, Pedro Machado

D.8 *Cosmic nurseries: from stars to free-floating planets*

Kora Muzic & Afonso do Brito do Vale

**IBEB | INSTITUTE OF BIOPHYSICS AND BIOMEDICAL
ENGINEERING**



D.9 *Gold nanoparticles as light activated tools for breast cancer photothermal therapy*

Tânia Ferreira-Gonçalves, Daniela Nunes, M. Manuela Gaspar, João M.P. Coelho, António P. de Almeida, David Ferreira, Hugo A. Ferreira, Catarina P. Reis

D.10 *AI can predict breast cancer up to three years before clinical diagnosis*

João Mendes, Bernardo Oliveira, Carolina Araújo, Joana Galvão, Nuno C. Garcia, Nuno Matela

**LIP | LABORATORY OF INSTRUMENTATION AND EXPERIMENTAL
PARTICLE PHYSICS**

D.11 *RAdiation Dosimetry to Advance RadioTherapy*

Jorge Sampaio, Daniel Galaviz, João Gentil, José Marques, Luís Peralta, José Figueiredo, Pamela Teubig, Cristiana Rodrigues, Duarte Guerreiro, Joana Antunes, Catarina D. Silva, Carina Coelho, Francisca Afonso



D.12 *Systematic Atomic Data for r-Process Signatures in Kilonovae: From Early to Late Phases*

Tomás Campante, Ricardo F. Silva, Luís Leitão, Daniel Garcia, Jorge. M. Sampaio, José. P. Marques

D.13 *Space Science and Instrumentation*

André Moitinho, António Amorim, Paulo Gordo, Bruno Alessi, Duarte Almeida, Sandro Moreira, Nicole Dias, Beltrán Nadal, João Castanheira, Geraldo Rodrigues, Ariana Ferreira, João Galupa, Pedro Azóia

D.14 *Neutrino Physics with the SNO+ and DUNE experiments*

José Maneira e Valentina Lozza

D.15 *Quantum tunnelling in stars: nuclear reactions studies for stellar nucleosynthesis*

Francisco. G. Barba, Raquel Nunes, Margarida Paulino, Ricardo Pires, Pamela Teubig, Manuel Xarepe, Daniel Galaviz

E. MATHEMATICAL SCIENCES

CEAUL | CENTRE OF STATISTICS AND ITS APPLICATIONS



E.1 *Statistical Considerations in Variant Calling. A Performance-Based Comparative Study*

Vera Pinto, Lisete Sousa, Carina Silva

E.2 *Bridging between Informatics, Statistics, Ecology and Palaeontology: Using CNNs and Procedurally Simulated Data for Automated Vertebrate Footprints Classification*

Carolina S. Marques, A. Mota, M. Belvedere, D. Castanera, I. Díaz-Martínez, E. Malafaia, S. Pereira, L. M. Rosalino, V. F. Santos, L. Sciscio, E. Dufourq.

CEMS.UL | CENTER FOR MATHEMATICS, FUNDAMENTAL APPLICATIONS AND OPERATIONS RESEARCH



E.3 *Formulations and branch-and-cut algorithms for cycle covers with up to p cycles*

Francisco Canas and Luís Gouveia

E.4 *Multiplicative Averages of Plancherel Random Partitions: Elliptic Functions, Phase Transitions, and Applications*

Giulio Ruzza

E.5 *Random Non-Invertible Two Dimensional Cocycles*

Marcelo Durães

E.6 *General Notions of Consistency*

Paulo Guilherme Santos

F. COMPUTER SCIENCE AND ENGINEERING

LASIGE | COMPUTER SCIENCE AND ENGINEERING RESEARCH CENTRE



- F.1** *A soft sensor to assess the energy performance of laundry washing machines*
Zygimantas Jasiunas, José Cecílio, Pedro M. Ferreira
- F.2** *Deep Generative Modeling for Longitudinal Clinical Data Generation*
Ruben Branco, Marta Gromicho, Mamede de Carvalho, Piero Fariselli, Sara C. Madeira
- F.3** *Processing Web Applications using NLP for Vulnerability Identification*
Jorge Guerreiro, Ibéria Medeiros
- F.4** *Neuro-Symbolic AI for modelling Bio-Knowledge Graphs with contradictions*
Laura Balbi, Catia Pesquita
- F.5** *Exploring the Uncanny Valley Effect in Adults with Autistic Traits: The Role of Visual Perception and Gender on Human-Robot Interaction*
Isabel D. Trancoso, Tomás Palma, Soraia M. Alarcão
- F.6** *Deadlock Freedom in FreeST*
Luís Santos, Andreia Mordido, Vasco T. Vasconcelos

G. HISTORY AND PHILOSOPHY OF SCIENCES

CIUHCT - INTERUNIVERSITY CENTER FOR THE HISTORY OF SCIENCE AND TECHNOLOGY



CIUHCT
Centro Interuniversitário de História
das Ciências e da Tecnologia
FCUL | FCT - UNL

- G.1** *Merging Times and Techniques of European and Asian Science Through the Indian Ocean (15th–19th centuries)*
Juan Acevedo
- G.2** *Metamorfoses dos plásticos*
Ana Duarte Rodrigues

G.3 *STM Knowledge: Made in Portugal*

Ana Duarte Rodrigues

G.4 *CUMA - Cultures of mathematics: Instruments, Astraria and Clocks between Practical and Theoretical Mathematics at the Eve of the Modern Age of Europe*

Samuel Gessner

G.5 *Projetos de Doutoramento*